San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

February 10, 2022

Mary Beth Thomas
UPF Corp
3801 Standard Street
Bakersfield, CA 93308

Re: Notice of Preliminary Decision – Emission Reduction Credits
Facility Number: S-1126
Project Number: S-1211795

Dear Ms. Thomas:

Enclosed for your review and comment is the District's analysis of UPF Corp's application for Emission Reduction Credits (ERCs) resulting from shutdown of a fiberglass filament manufacturing facility, at 3747 Standard Street, Bakersfield, CA. The quantity of ERCs proposed for banking is 2,951 lb-NOx/yr, 7,428 lb-PM10/yr, 2,242 lb-CO/yr and 8,354 lb-VOC/yr.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice comment period, the District intends to the issue the ERCs. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Dan Klevann of Permit Services at (661) 392-5500.

Sincerely,

Brian Clements
Director of Permit Services

BC:dk

Enclosures

cc: Courtney Graham, CARB (w/ enclosure) via email
cc: Laura Yannayon, EPA (w/ enclosure) via email

Samir Sheikh
Executive Director/Air Pollution Control Officer

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www.valleyair.org www.healthyairliving.com

EMISSION REDUCTION CREDIT BANKING APPLICATION REVIEW

Facility Name:	UPF Corp
Mailing Address:	3747 Standard Street Bakersfield, CA 93308
Contact Name:	Mary Beth Thomas
Telephone:	(805) 320-9220
Facility:	S-1126
ERC Certificate Numbers:	S-5256-1, S-5256-2, S-5256-3, S-5256-4
Project Number:	S-1211795
Date Received:	April 28, 2021
Date Complete:	June 10, 2021
Engineer:	Dan Klevann
Date:	1/18/22
Lead Engineer:	Leonard Scandura, Permit Services Manager *LS 2/10/22*

I. SUMMARY:

UPF Corp (UPF) is a fiberglass filament manufacturing facility that has shutdown operation and permanently closed the facility.

UPF operated a fiberglass forming furnace (PTO S-1126-12) and fiberglass forming and curing operation (PTO S-1126-13). The process melts silica into molten glass, which flows out holes in a trough into a chamber. The air hardens the glass, which snaps into fibers. The fibers travel down a chute where they are picked up onto a thin mat. The thin mat is used for purposes such as filter media and airplane insulation. UPF has requested ERCs for VOC, NOx, CO, and PM10 emission reductions.

UPF is not requesting emissions reduction credits (ERC) from any other permitted equipment at the facility, i.e. raw materials handling operations or the emergency generator.

UPF has applied for emission reduction credits for the greenhouse gas (GHG) emissions from the reduced electricity usage by shutting down the facility. However, GHG emission reduction credits are not available for facilities who are purchasing electricity from the power grid and using the electric power. The electricity that was once sold to UPF is now sold to someone else, as such the emission reduction is not real or permanent.

Therefore, no GHG ERCs will be granted for the electrical usage. No further discussion is required.

Following the shutdown of the facility on March 12, 2021, UPF submitted an application to bank the emission reduction credits (ERCs) for the emissions. Based on the historical operating data prior to the shutdown, and considering any discounts for the emission limit requirements of current or pending District Rules, the amounts of bankable Actual Emission Reductions (AER) for NOx, VOC, CO, and PM10 emissions are as shown in the table below. These values are calculated in Section V of this document:

Project Bankable Emission Reduction Credits (lbs/Qtr)					
Pollutant	**Certificate #**	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
VOC	S-5256-1	2,274	2,151	1,940	1,989
NO_x	S-5256-2	801	757	688	705
CO	S-5256-3	678	640	437	486
PM_{10}	S-5256-4	2,044	1,935	1,726	1,724

II. APPLICABLE RULES:

Rule 2201 New and Modified Stationary Source Review Rule (August 15, 2019)
Rule 2301 Emission Reduction Credit Banking (August 15, 2019)
Rule 4354 Glass Melting Furnaces (May 19, 2011)

III. LOCATION OF REDUCTION:

3747 Standard Street
Bakersfield, CA 93308

IV. METHOD OF GENERATING EMISSION REDUCTIONS:

Actual emission reductions are being generated by shutdown of a fiberglass filament manufacturing facility that has shutdown operation and permanently closed. The facility shutdown operations on March 12, 2021.

Equipment Removed:

PTO	Equipment
S-1126-12-9	4.25 MMBTU/HR MIXED BATCH FEEDING AND FURNACE AREA OPERATION CONSISTING OF A 4.25 MMBTU/HR GLASS MELTING FURNACE AND ENCLOSED MIXED BATCH FEED HOPPER WITH BIN VENT FILTER
S-1126-13-10	12.6 MMBTU/HR FIBERIZING, FIBER FORMING, CURING AND PACKAGING OPERATION CONSISTING OF FOUR 2.16 MMBTU/HR GLASS ATTENUATION BURNERS, FLARE TOWER, FIBER SLITTERS AND CHOPPERS, AND 3.9 MMBTU/HR CURING OVEN WITH AFTERBURNER

V. CALCULATIONS:

A. Assumptions and Emission Factors

The actual emissions will be calculated for each of the calendar quarters in the baseline period. The Historical Actual Emissions (HAE) will be calculated using the fuel usage and the appropriate source test emissions or the permitted emission factors.

Fuel Usage Calculations:
UPF provided monthly fuel usage for the facility (see Appendix B). They do not have individual fuel meters for the equipment. The fuel usage is split between the furnace (permit '-12) and the curing oven/ attenuation burners (permit '-13). As a continuous process, the furnace runs fully loaded 100% of the time year round as to prevent the glass from solidifying in the furnace itself. However, UPF has stipulated that rare reductions in operations do occur and thus a 98% annual uptime with 95% load is assumed for the glass furnace.

Permit S-1126-12 Glass furnace:
Max heat input is 4.25 MMBtu/hr

Assume furnace operates 98% of the time (358 days/year- down for 7 days/year) and it ran at 95% of the permitted load.

Permit S-1126-12 Annual uptime = 8760 hrs/yr * 98% = 8592 hrs/yr operation
95% load = 4.25 MMBtu/hr * 0.95 = 4.0375 MMBtu/hr

So the maximum annual fuel usage for the furnace permit S-1126-12 is
Max fuel usage = 8592 hrs/yr operation * 4.0375 MMBtu/hr
= 34,690.2 MMBtu/yr

Fuel records are only available for the whole facility. There are no meters for the individual equipment. Assume glass furnace (Permit '-12) ran as calculated above. Subtract the glass furnace gas usage from the whole facility gas usage to find the permit '-13 (attenuation and afterburner) fuel usage.

Maximum fuel annual fuel usage for permit S-1126-13 is calculated by subtracting the fuel used in the furnace S-1126-12 from the total annual fuel usage. The fuel usage calculation is shown in Appendix D.

Emission factors for permit S-1126-12 (fiberglass furnace):

NOx:
There are no source tests for NOx for permit S-1126-12. Therefore the permitted NOx emission limit and the furnace fuel usage rating will be used to calculate an emission factor for NOx.

Current NOx emission rate 0.17 lb NOx/hr
Heat input of furnace 4.25 MMBtu/hr
NOx emission factor = 0.17 lb NOx/hr / 4.25 MMBtu/hr
= 0.04 lb NOx/ MMBtu

District Rule 4354 was amended in December 2021. Under the amended rule the glass furnace lost its exemption from the NOx requirements of the Rule. The NOx requirement fiberglass furnaces for NOx is as low as 1.3 lb/ton. The current permit limits for the furnace are 0.17 lb NOx/hr with a production limit of 0.146 ton glass/, which equates to 1.16 lb NOx/ ton. This level is less than the rule limit. Therefore, no adjustment of the NOx emissions is required.

PM10:
There were no source tests for the PM10 from the furnace alone. PM10 emissions for the furnace are limited by the permit to 0.0422 lb/MMBtu. Therefore we will use the permitted emission factor for PM10.

VOC:
There were no source tests for the VOC emissions from the furnace. Similar to the NOx calculations, the permitted VOC emission limit (0.41 lb VOC/hr) will be used to calculate the emission factor by dividing by the heat input of the furnace to get 0.096 lb VOC/MMBtu. We will use the permitted emission factor for VOC.

CO:
There were source test for the CO emissions during the baseline period. The source tests (0.01-0.04 lb/hr) were lower than the permitted level of 0.21 lb/hr. Therefore the source test results will be used for the emission factor. The lb/hr emissions are divided by the heat input of the furnace to find the emission factor (0.002 - 0.009 lb/MMBtu) during the baseline period.

Emission factors for permit S-1126-13 (fiber forming/curing):
Permit S-1126-13 has multiple emission units associated with it. The four 2.16 MMBtu/hr attenuation burners and one 3.9 MMBtu/hr afterburner. The emissions are sent to shared stacks. The emission factors for the attenuation burners and the afterburner will be determined similar to permit S-1126-12.

NOx:
Source testing for NOx for permit S-1126-13 was not required beyond 1999 as UPF had shown compliance with the permitted limits by a significant amount and source testing was not required to show continued compliance as there was not an applicable rule limit at that time. The last source test for the permit '-13 forming stacks and curing oven stack showed NOx emissions of 0.579 lb/hr. The permitted limit is 1.04 lb/hr. Therefore, the source test result will be used to determine a NOx emission factor for permit '-13. The total heat input of the burners is used to calculate the emission factor that will be used for the attenuation burners and the afterburner as shown below.

Attenuation/ Curing oven burners
Source test 0.579 lb NOx/hr
Heat input of attenuation/curing oven burners 12.6 MMBtu/hr
NOx emission factor = 0.579 lb NOx/hr / 12.6 MMBtu/hr
= 0.046 lb NOx/ MMBtu

VOC:
There were no source tests for the VOC from the attenuation burners and curing oven burner. VOC emissions are limited by the permit to 1.81 lb VOC/hr. Therefore we will use the permitted emission rate and the heat input of the burners to calculate the emission factor for VOC.

Attenuation/ curing oven burners
Permit limit 1.81 lb VOC/hr
Heat input of attenuation/ curing oven burners 12.6 MMBtu/hr
VOC emission factor = 1.81 lb VOC/hr / 12.6 MMBtu/hr
= 0.144 lb VOC/ MMBtu

PM10:
The attenuation/ curing oven burners were source tested for PM10. The source test showed emissions ranging from 1.8 - 2.19 lb PM10/ hr during the baseline period. The source test results and the heat input will be used to calculate the PM10 emission factor for the attenuation burners during the baseline period. The emission factor will vary depending on the associated source test. A sample calculation is shown for the applicable source test during the start of the baseline period.

Attenuation/ curing oven burners
Source test 1.8 lb PM10/hr
Heat input of attenuation/curing oven burners 12.6 MMBtu/hr
PM10 emission factor = 1.8 lb PM10/hr / 12.6 MMBtu/hr
= 0.143 lb PM10/ MMBtu

CO:
The attenuation/ curing oven burners were source tested for CO. The source test showed emissions ranging from 0.33 – 0.87 lb CO/ hr during the baseline period. The source test results and the heat input will be used to calculate the CO emission factor for the attenuation burners during the baseline period. The emission factor will vary depending on the associated source test. A sample calculation is shown for the applicable source test during the start of the baseline period.

Attenuation/ curing oven burners
Source test 0.33 lb CO/hr
Heat input of attenuation/curing oven burners 12.6 MMBtu/hr
CO emission factor = 0.33 lb CO/hr / 12.6 MMBtu/hr
= 0.026 lb CO/ MMBtu

Emission factor summary:

Furnace Emission Factors			
Unit	**Pollutant**	**Emission Factor**	**Source**
S-1126-12	VOC	0.096 lb/MMBtu	Permit
	NO_x	0.04 lb/MMBtu	Permit
	PM_{10}	0.0422 lb/MMBtu	Permit
	CO	0.002 - 0.009 lb/MMBtu	Source tests 2016- 2018

Attenuation/ Curing oven burners Emission Factors			
Unit	**Pollutant**	**Emission Factor**	**Source**
S-1126-13	VOC	0.144 lb/ MMBtu	Permit
	NO_x	0.046 lb/MMBtu	Source test
	PM_{10}	0.143 - 0.174 lb/MMBtu	Source tests 2015- 2018
	CO	0.026 - 0.069 lb/MMBtu	Source tests 2015- 2018

B. Baseline Period Determination

Per the following sections of Rule 2201, baseline period is defined as:

3.9.1 two consecutive years of operation immediately prior to submission of the complete application; or

3.9.2 another time period of at least two consecutive years within the five years immediately prior to submission of the complete application as determined by the APCO as more representative of normal operation;

The facility was shut down in March 2021. Due to operational issues, the facility has proposed an alternate baseline period of January 1, 2018 thru December 31, 2019 as more representative of normal source operations. The facility had a protracted maintenance turnaround that took place in early 2020, and the Covid-19 pandemic also caused issues for the maintenance turnaround as well as standard operations in the remainder of 2020.

The facility provided monthly fuel usage data for the facility from 2014 to 2021. The District used the provided monthly fuel usage data to determine the normal operation from the fuel usage data. The District, as per section 3.9.2, used the provided fuel usage data to find a time period that was closest to the average normal source operation of the facility. Each consecutive two, three, and four-year period are compared with the total normal source operating average. The period that is closest to the normal source operation is determined to be the baseline period. It was shown that the thirty-six month time period from July 2016 through June 2019 was closest to the average normal operation for the facility (see fuel usage calculations Appendix D). Therefore, a three year baseline period will be used from July 2016 through June 2019.

C. Historical Actual Emissions (HAE)

HAE was calculated using the fuel usage and the actual emission factor for the fuel burning equipment.

To be the most conservative, we will use the lowest emission factor on a pollutant by pollutant basis to determine the breakdown of fuel usage for each emission unit on permit '-13.

HAE calculation spreadsheets are shown in the Appendix D. A sample calculation is shown below.

(Heat Input [MMBtu/month])*(Emission Factor [lb-Pollutant/MMBtu]) = Emissions [lb-Pollutant/month]

Example – June 2019 unit '-12:
(2,106 MMBtu)(0.04 lb-NOx/MMBtu) = 84.2 lbs-NOx/month

HAE PTOs S-1126-12 and '13 Furnace + Attenuation/Curing (lbs/Qtr)				
Pollutant	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
VOC	2,527	2,389	2,156	2,210
NO_x	890	842	764	783
PM_{10}	2,271	2,150	1,918	1,915
CO	754	711	486	540

D. Adjustments to HAE

Pursuant to Section 3.23 of Rule 2201, Historical Actual Emissions must be discounted for any emissions reduction, which is:

- 3.23.1 Any emissions reductions required or encumbered by any laws, rules, regulations, agreements, orders, or permits; and
- 3.23.2 Any emissions reductions attributed to a control measure noticed for workshop, or proposed or contained in a State Implementation Plan, and
- 3.23.3 Any emissions reductions proposed in the District air quality plan for attaining the annual reductions required by the California Clean Air Act, and
- 3.23.4 Any Actual Emissions in excess of those required or encumbered by any laws, rules, regulations, orders, or permits. For units covered by a Specific Limiting Condition (SLC), the total overall HAE for all units covered by SLC must be discounted for any emissions in excess of that allowed by the SLC.

The emission factors above were used to calculate HAE. The subject units were found to be in compliance with all applicable prohibitory rules.

Rule 4354 was amended in December 2021. This was after the banking application was deemed complete. Therefore, the Rule 4354 exemption changes would not affect this facility for the ERC banking application.

The resulting emissions would be surplus of any applicable rules, regulations, plans, or permits. No adjustments to the HAE were required.

E. Actual Emissions Reductions (AER)

Pursuant to Section 3.2 of Rule 2201, Actual Emissions Reduction (AER): the decrease of actual emissions, compared to the Baseline Period, from an emissions unit and selected for use as emission offsets or ERC banking. AER shall meet the following criteria:

- 3.2.1 Shall be real, enforceable, quantifiable, surplus, and permanent.
- 3.2.2 To be considered surplus, AER shall be in excess, at the time the application for an Emission Reduction Credit or an Authority to Construct authorizing such reductions is deemed complete, of any emissions reduction which:
    - 3.2.2.1 Is required or encumbered by any laws, rules, regulations,
    - agreements, orders, or
    - 3.2.2.2 Is attributed to a control measure noticed for workshop, or
    - proposed or contained in a State Implementation Plan, or
    - 3.2.2.3 Is proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act.

The key factor for VOC emissions in this project is with AER is section 3.2.2, the date the application is deemed complete. For this ERC banking project, the application was deemed complete June 10, 2021. The rules, regulations, plans, noticed or in effect on that day are what are used to determine whether the emissions are surplus.

The 2018 PM2.5 plan adopted in 2018 included commitments to review Rule 4354 for potential NOx reductions. In December 2020, there was a scoping meeting for Rule 4354. In the scoping meeting, only NOx, SOx and PM emissions were listed as pollutants to be evaluated for possible changes.

The first workshop of Rule 4354 was noticed on September 16, 2021 as reducing NOx, SOx, PM during the rulemaking. This was after the banking application was deemed complete as well as not mentioning VOC as a pollutant of interest. As VOC was not listed as a pollutant of interest, there were no rules, regulations, or plans were noticed or in effect that were reducing VOC emissions. Therefore, the VOC rule changes are not applicable to the ERC banking project. The current furnace meets the applicable rule requirements for NOx, SOx, CO and PM.

One note, while the banking project is not affected by the Rule 4354 VOC exemption change, once the amended rule is federally approved by EPA the VOC emissions will not be surplus of rule requirements.

Per Rule 2201, Section 4.12, the Actual Emissions Reductions due to shutdown of emissions units shall be calculated, on a pollutant-by-pollutant basis, as follows:

AER = HAE - PE2
Where:
HAE = Historic Actual Emissions
PE2 = Post-project Potential to Emit

Because the facility is permanently shut down, PE2 = 0.
Therefore, AER = HAE – 0, or AER = HAE

AER Furnace + Attenuation/Curing (lbs/Qtr)				
Pollutant	**1st Qtr**	**2nd Qtr**	**3rd Qtr**	**4th Qtr**
VOC	2,527	2,389	2,156	2,210
NOx	890	842	764	783
PM10	2,271	2,150	1,918	1,915
CO	754	711	486	540

F. Air Quality Improvement Deduction (AQID)

Actual Emission Reductions must be discounted by 10% for Air Quality Improvement.

Sample calculation:

Q1 VOC lb = AER X (0.1)
= (2,004 lb) X (0.1)
= 200.4 lb
= 200 lb

Air Quality Improvement Deduction (AQID)				
Pollutant	1st Qtr. AQID (lb/qtr)	2nd Qtr. AQID (lb/qtr)	3rd Qtr. AQID (lb/qtr)	4th Qtr. AQID (lb/qtr)
VOC	253	239	216	221
NOx	89	84	76	78
PM10	227	215	192	192
CO	75	71	49	54

G. Increases in Permitted Emissions

The facility has been shut down. The permit to operate have been surrendered and canceled. There are no increases in emissions from this project.

H. Bankable Emissions Reductions Credits

The bankable emissions reduction credits, presented in following table, are determined by subtraction of the Air Quality Improvement Deduction (discussed above) from the AER.

Bankable Emission Reductions Credit (ERC)				
Pollutant	1st Qtr. ERC (lb/qtr)	2nd Qtr. ERC (lb/qtr)	3rd Qtr. ERC (lb/qtr)	4th Qtr. ERC (lb/qtr)
VOC	2,274	2,151	1,940	1,989
NOx	801	757	688	705
PM10	2,044	1,935	1,726	1,724
CO	678	640	437	486

VI. COMPLIANCE:

To be eligible for banking, emission reduction credits (ERC's) must be verified as being real, enforceable, quantifiable, permanent, and surplus pursuant to District Rules 2201 and 2301. In addition, the application must be submitted within the timeline specified in Rule 2301.

A. Real

The emission reductions were generated by the permanent shutdown of the fiberglass manufacturing plant permits S-1126-12 and S-1126-13.

The permanent cessation of emissions from the facility is March 12, 2021. The application to bank ERCs was received on April 28, 2021. Therefore, the emission reductions are real.

B. Enforceable

The components authorized by the permit have been removed from service and the Permit to Operate has been canceled. Therefore, the emission reductions are enforceable.

C. Quantifiable

Reduction amounts were calculated from historic process data, and accepted emission factors that consider any discounting requirements for banking emissions from the burners. Therefore, the emission reductions are quantifiable.

D. Permanent

The applicant has removed the components from service and canceled the permit to operate associated with the facility. Therefore, the AER is permanent.

E. Surplus

To be considered a surplus actual emission reduction (pursuant to Rule 2201 section 3.2.2), the emission reduction must be in excess of any emissions reduction which is:

1) required or encumbered by any laws, rules, regulations, agreements, orders,
2) attributed to a control measure noticed for workshop, or proposed or contained in a State implementation Plan, or
3) proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act

The discussion below evaluates if the emission reductions resulting from the shutdown of the fiberglass plant meets the criteria above:

The glass plant was subject to the following current District prohibitory rules

Rule 4102 – *Nuisance*
This rule is to limit the emissions from sources such that the emissions do not cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property. The facility was required to operate the electro static precipitator and NaOH wet scrubbing system. There were no emission limits with those requirements.

Rule 4001 – *New Source Performance Standa*rds
The NSPS CC- Standards of Performance for Glass Manufacturing Plants is applicable to the UPF glass plant. The requirements of CC are for PM10 emissions. The facility currently meets the NSPS requirement of 0.5 gm-PM/kg-glass with the limit on condition 14.

PM_{10} Emissions:
Source test information for PM_{10} during the chosen baseline period shows the facility meets the NSPS CC PM10 emission limit. Therefore, the emission reduction is surplus of the emissions allowable by District, or any other, applicable rules and regulations, or source test data.

Rule 4354 - Glass *Melting Furnaces*
UPF was previously exempt from Rule 4354 per Section 4.2 as the facility potential to emit for both NOx and VOC was less than 10 tons/yr.

The emission reduction is in excess of any emission reduction attributed to a control measure noticed for workshop, or proposed or contained in a State implementation Plan

The glass plant was exempt from Rule 4354 before the shutdown. Rule 4354 was amended in December 2021. The rule exemptions were revised such that the exemption for the facility being under 10 tons/yr for NOx and VOC is no longer available. However, the banking action was deemed complete on June 10, 2021. This date is what sets the applicable rules and regulations that are used to determine surplus. The PM2.5 plan adopted in 2018 and the workshop in December 2020 both mentioned Rule 4354 as a rule to be workshopped. However, the only pollutants that were noticed to be looked at were NOx, SOx, and PM. As there was not a notice to workshop VOC emissions until November 2021, the VOC reductions are not to be considered in determining surplus for this banking action. Note that once the December 2021 Rule 4354 amendment is federally approved, the VOC credits may not be completely surplus at that time.

UPF would still be able to enjoy the exemption from SOx and PM10 emission limits as the facility has permitted glass production capacity of less than 5 tons/day, and the actual NOx and VOC emissions are less than 8 tons/yr. However, UPF would now be subject to the NOx limits in section 5.1 and the CO and VOC limits in section 5.2. Currently the facility meets the NOx and CO limits. The emissions are surplus of any control measure noticed for workshop, proposed or contained in a State Implementation Plan.

The emission reduction is in excess of any emission reduction that is proposed in the APCO's adopted air quality plan pursuant to the California Clean Air Act.

A review of the 2016 ozone and 2018 PM2.5 attainment plans revealed that the 2018 PM2.5 plan includes a commitment to investigate further NO_x SOx, and PM10 reductions from Rule 4354 for glass melting furnaces. As discussed above the emission reductions are surplus of the emission limits in the amended Rule 4354.

As discussed above, the emission reduction meets the criterial for a surplus actual emission reduction.

Rule 2301 – Emission Reduction Banking:

Section 5.5 states that ERC certificate applications for reductions shall be submitted within 180 days after the emission reduction occurs. UPF permanently ceased operation on March 12, 2021. The ERC application was received on April 28, 2021, within the 180-day timeframe allowed. Therefore, the application was submitted in a timely fashion.

Section 6.1.2 states that if the emission reductions were created as a result of the shutdown of a permitted emissions unit, the relevant Permit(s) to Operate has been surrendered and voided. UPF has surrendered and canceled the PTO's for their facility.

VII. RECOMMENDATION:

After public notice, comments and review, issue ERCs to UPF in the amounts shown below and on the draft ERC certificates contained in Appendix E:

		---------- ERC (lb) ----------			
ERC #		Q1	Q2	Q3	Q4
S-5256-1	VOC	2,274	2,151	1,940	1,989
S-5256-2	NOx	801	757	688	705
S-5256-3	CO	678	640	437	486
S-5256-4	PM10	2,044	1,935	1,726	1,724

Appendix A
Permits
S-1126-12, S-1126-13

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1126-12-9 **EXPIRATION DATE:** 02/29/2024

SECTION: NW23 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
4.25 MMBTU/HR MIXED BATCH FEEDING AND FURNACE AREA OPERATION CONSISTING OF A 4.25 MMBTU/HR GLASS MELTING FURNACE AND ENCLOSED MIXED BATCH FEED HOPPER WITH BIN VENT FILTER

PERMIT UNIT REQUIREMENTS

1. Furnace shall include provisions to feed continuous filaments to attenuation burners listed on S-1126-13. [District Rule 2201]
2. Mixed batch silo shall be pneumatically filled and material shall be transported from mixed batch silo to melting furnace with screw feeder. Material collected in bin vent filter shall discharge to mixed batch silo only. [District Rule 2201]
3. Furnace exhaust shall be served by McGill electrostatic precipitator (ESP) exhausting to 27 inch dia. by 50 ft. tall stack equipped with continuously recording opacity meter and temperature indicator. [District Rule 2201]
4. There shall be no provisions for introduction of dilution air into furnace exhaust. [District Rule 1110]
5. This unit shall be fired on Public Utility Commission (PUC) regulated natural gas only. [District Rule 2201]
6. Melting capacity of furnace shall not exceed 7,000 lbs/day. [District Rule 2201]
7. NaOH injection monitor shall be set to trigger alarms when low flow, as determined by source test showing compliance with emission limits, or no flow conditions exist. [District Rules 2080, 2201 and 4102]
8. Wet scrubbing system shall inject NaOH at a rate equivalent to at least a 20% dial setting on the metering pump. [District Rule 2201]
9. ESP exhaust stack gas temperature shall be at least 160 degrees F at discharge point. [District Rule 2201]
10. Overall control efficiency for scrubber and ESP shall be at least a 98% for particulate matter (PM10). [District Rule 2201]
11. ESP and NaOH wet scrubbing system shall be operated whenever furnace S-1126-12 is operating. [District Rules 2201and 4102]
12. Permittee shall comply with all applicable provisions of Rule 4001 including but not limited to 40 CFR 60 Subparts A and CC. [District Rule 4001]
13. Mixed batch silo emissions shall not exceed 0.5 lb PM-10/day. [District Rule 2201]
14. Emission rate of particulate matter shall not exceed 0.5 gram/kilogram glass produced. [District Rule 4001, Subpart CC]
15. Emissions of particulate matter (PM10) shall not exceed 2.56 lb/hr for all combustion equipment associated with permit units S-1126-12 and S-1126-13 except the curing oven w/afterburner on unit S-1126-13. [District Rule 2201]
16. Particulate matter (as PM10) emission rates from furnace on line F1 (S-1126-12) shall not exceed 0.0422 lb/MMBtu. [District Rule 2201]

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

17. Emission rates from F1 furnace shall not exceed any of the following limits: SOx (as SO2): 0.22 lb/hr, NOx (as NO2): 0.17 lb/hr, VOC: 0.41 lb/hr or CO: 0.21 lb/hr. [District Rule 2201]
18. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
19. Compliance source test for PM10 & CO emission limits shall be conducted annually. [District Rule 2201]
20. Source testing shall be conducted with all equipment operating in a mode representative of normal operation. [District Rule 1081]
21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
22. The following test methods shall be used: PM - EPA Method 5, PM10 - EPA Method 201, CO - ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081, 4001]
23. Permittee shall demonstrate daily compliance with facility wide PM10 emission limit by maintaining accurate daily records of fuel usage and production throughput of permit units S-1126-12 and S-1126-13. [District Rule 2201]
24. Permittee shall maintain daily records of NaOH injection rate, fuel usage, product throughput, and PM10 emissions and shall make such records readily available for District inspection for a period of five years. [District Rules 1070 and 2201]

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1126-13-10 **EXPIRATION DATE:** 02/29/2024

SECTION: 23 **TOWNSHIP:** 29S **RANGE:** 27E

EQUIPMENT DESCRIPTION:
12.6 MMBTU/HR FIBERIZING, FIBER FORMING, CURING AND PACKAGING OPERATION CONSISTING OF FOUR 2.16 MMBTU/HR GLASS ATTENUATION BURNERS, FLARE TOWER, FIBER SLITTERS AND CHOPPERS, AND 3.9 MMBTU/HR CURING OVEN WITH AFTERBURNER

PERMIT UNIT REQUIREMENTS

1. Flare tower shall be utilized only during start-up of attenuation burners. [District Rule 2201]
2. Liquid utilized in wash-water spray operation shall not be composed of volatile organic materials. [District Rule 2201]
3. This unit shall be fired on Public Utility Commission (PUC) regulated natural gas or propane only. [District Rule 2201]
4. Emissions of particulate matter (PM10) shall not exceed 2.56 lb/hr for all combustion equipment associated with permit units S-1126-12 and S-1126-13 except for curing oven w/afterburner on unit S-1126-13. [District Rule 2201]
5. Emission rates from curing oven w/afterburner shall not exceed any of the following limits: PM10: 0.13 lb/hr or CO: 0.83 lb/hr. [District Rule 2201]
6. Emission rate from attenuation burners shall not exceed the following limit: CO: 8.56 lb/hr. [District Rule 2201]
7. Emission rates from attenuation burners/curing oven w/afterburner shall not exceed any of the following limits: SOx (as SO2): 0.041 lb/MMBtu, NOx (as NO2): 1.04 lb/hr, or VOC: 1.81 lb/hr. [District Rule 2201]
8. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]
9. Compliance source test for PM10 and CO emission limits shall be conducted annually on the attenuation burners only. [District Rule 2201]
10. Source testing shall be conducted with all equipment operating in a mode representative of normal operation. [District Rule 1081]
11. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
12. The following test methods shall be used: PM10 - EPA Method 201, CO - ARB Method 100, and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rule 1081]
13. Permittee shall demonstrate daily compliance with facility wide PM10 emission limit by maintaining accurate daily records of fuel usage and production throughput of permit units S-1126-12, and S-1126-13. [District Rule 2201]
14. Permittee shall maintain daily records of fuel usage, product throughput, and PM10 emissions and shall make such records readily available for District inspection for a period of five years. [District Rules 1070 and 2201]

Appendix B

Fuel Use Data

Fuel gas burned **UPF Corporation** **8/25/21**

Gas was used in permit units S1126-12-9 and 13-10
Data from PG&E gas bill

Total gas burned (therms/month from PG&E bill)

Year	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	Average/month
Month													
January	51,946	78,196	70,277	73,805	56,423	57,506	87,381	58,406					66,743
February	47,114	63,468	71,973	66,602	73,347	76,211	75,274	61,803					66,974
March	26,183	3,355	72,359	53,989	76,280	75,724	76,265	57,455					55,201
April		0	76,537	65,150	61,227	61,043	62,566	75,052					57,368
May		40,299	70,201	70,712	68,578	41,841	49,641	71,254					58,932
June		68,840	50,934	49,933	68,355	43,441	48,879	75,776	All records destroyed from PG&E, the gas provider, and UPF				58,023
July		66,052	73,032	59,372	66,507	55,406	58,668	71,962	(7 year IRS limit on data retention)				64,428
August		67,147	69,208	52,999	63,074	67,259	59,771	78,142					65,371
September		68,695	65,838	72,004	56,159	37,116	56,296	74,399					61,501
October		70,077	54,138	76,211	38,356	45,808	84,071	73,400					63,152
November		57,069	70,756	79,342	71,291	72,457	68,984	83,681					71,940
December		63,231	73,615	58,819	51,806	49,169	69,107	76,398					63,164
Total for year	125,243	646,429	818,868	778,938	751,403	682,981	796,903	857,728					752,796
BTU/MSCF content		1.022	1.027	1.015	1.015	1.031	1.029	1.023	1.000	1.000	1.000	1.000	
Conversion- MSCF		63,251	79,734	76,743	74,030	66,245	77,444	83,844	0	0	0	0	

APCD Annual Report (MMSCF)												Average/year
-12-9	Process 1	28.77	34.66	34.66	33.01	48.07	53.04	54.87		53.20	50.16	46.20	43.66
-13-10	Process 1	34.48	45.71	40.17	40.06	18.37	24.71	29.28		18.30	33.44	30.80	31.53
Totals APCD reports		63.25	80.37	74.83	73.07	66.44	77.75	84.15		71.50	83.60	77.00	**75.20**

On 2019 APCD report, the Process 3 gas was included in Process 1 gas reported

Average 2019-2020	**71.81**
Average 2018-2019	**77.60**
Average 2017-2018	**73.95**
Average 2016-2017	**69.76**

ENERGY STATEMENT

www.pge.com/MyEnergy

Account No: 5876747845-4
Statement Date: 02/02/2021
Due Date: 02/19/2021

Details of Gas Charges

12/31/2020 - 01/31/2021 (31 billing days)

Service For: GIBSON ST & TURCON AVE
Service Agreement ID: 5876747005 GAS FIBERGLASS MFG PLANT

12/31/2020 – 01/31/2021

Rate Schedule: GNT
Rate Description: Gas Transportation Service to Noncore End-Use Customers
Net Charges $216.73

12/31/2020 – 01/31/2021

Rate Schedule: GNTT
Rate Description: Transmission Service Level
Net Charges $10,523.22

12/31/2020 – 01/31/2021

Franchise Fee Surcharge	$136.10
Gas PPP Surcharge	2,755.74
Total Gas Charges	**$13,631.79**

Service Information

Meter #	52796568
Total Usage	51,946.000000 Therms
Serial	F

Additional Messages

Detailed bill calculation For more information, including a detailed explanation of how your bill was calculated, log in to My Energy at **www.pge.com/MyEnergy**.

Visit **www.pge.com/MyEnergy** *for a detailed bill comparison.*

ENERGY STATEMENT

www.pge.com/MyEnergy

Account No: 5876747845-4
Statement Date: 03/08/2021
Due Date: 03/25/2021

Details of Gas Charges

01/31/2021 - 02/28/2021 (28 billing days)

Service For: GIBSON ST & TURCON AVE
Service Agreement ID: [redacted] GAS FIBERGLASS MFG PLANT

01/31/2021 – 02/28/2021

Rate Schedule: GNT
Rate Description: Gas Transportation Service to Noncore End-Use Customers
Net Charges $195.75

01/31/2021 – 02/28/2021

Rate Schedule: GNTT
Rate Description: Transmission Service Level
Net Charges $9,544.35

01/31/2021 – 02/28/2021

Franchise Fee Surcharge	$124.85
Gas PPP Surcharge	2,499.40
Total Gas Charges	**$12,364.35**

Service Information

Meter # [redacted]
Total Usage 47,114.000000 Therms
Serial [redacted]

Additional Messages

Detailed bill calculation For more information, including a detailed explanation of how your bill was calculated, log in to My Energy at **www.pge.com/MyEnergy**.

Visit **www.pge.com/MyEnergy** *for a detailed bill comparison.*

ENERGY STATEMENT

www.pge.com/MyEnergy

Account No: 5876747845-4
Statement Date: 04/01/2021
Due Date: 04/19/2021

Details of Gas Charges

02/28/2021 - 03/31/2021 (31 billing days)
Service For: GIBSON ST & TURCON AVE
Service Agreement ID: 5876747005 GAS FIBERGLASS MFG PLANT

02/28/2021 – 03/31/2021

Rate Schedule: GNT
Rate Description: Gas Transportation Service to Noncore End-Use Customers
Net Charges $216.73

02/28/2021 – 03/31/2021

Rate Schedule: GNTT
Rate Description: Transmission Service Level
Net Charges $5,612.85

02/28/2021 – 03/31/2021

Franchise Fee Surcharge	$73.57
Gas PPP Surcharge	1,389.01
Total Gas Charges	**$7,292.16**

Service Information

Meter #	52796568
Total Usage	26,183.000000 Therms
Serial	F

Additional Messages

Detailed bill calculation For more information, including a detailed explanation of how your bill was calculated, log in to My Energy at **www.pge.com/MyEnergy**.

Pacific Gas and Electric Company

End User

UPF CORP | Bill Period: 11/30/20 - 12/31/20 | Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)		Meter Volume	Therms Delivered
52796568	11/30/20	12/31/20	6,187	1.022	MCF		63,231
Total Therms Delivered							**63,231**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
01/31/20	1.000	78,196
02/29/20	1.000	63,468
03/31/20	1.000	3,355
04/30/20	1.000	0
05/31/20	1.000	40,299
06/30/20	1.000	68,840
07/31/20	1.000	66,052
08/31/20	1.000	67,147
09/30/20	1.000	68,695
10/31/20	1.000	70,077
11/30/20	1.000	57,069
12/31/20	1.000	63,231
Total		**646,429**
Average Monthly Use		**53,869**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/20	31	53,869	7.09611	$219.98
Total						**$219.98**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/20	63,231	$0.16560	$10,471.05
Total			**63,231**		**$10,471.05**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP | Bill Period: 11/30/19 - 12/31/19 | Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)	Meter Volume	Therms Delivered
52796568	11/30/19	12/31/19	7,168	1.027	MCF	73,615
Total Therms Delivered						**73,615**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
01/31/19	1.000	70,277
02/28/19	1.000	71,973
03/31/19	1.000	72,359
04/30/19	1.000	76,537
05/31/19	1.000	70,201
06/30/19	1.000	50,934
07/31/19	1.000	73,032
08/31/19	1.000	69,208
09/30/19	1.000	65,838
10/31/19	1.000	54,138
11/30/19	1.000	70,756
12/31/19	1.000	73,615
Total		**818,868**
Average Monthly Use		**68,239**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/19	31	68,239	7.16548	$222.13
Total						**$222.13**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/19	73,615	$0.16626	$12,239.23
Total			**73,615**		**$12,239.23**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP

Bill Period: 11/30/18 - 12/31/18

Service Agreement ID. 5876747005

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)		Meter Volume	Therms Delivered
52796568	11/30/18	12/31/18	5,795	1.015	MCF		58,819
Total Therms Delivered							**58,819**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
01/31/18	1.000	73,805
02/28/18	1.000	66,602
03/31/18	1.000	53,989
04/30/18	1.000	65,150
05/31/18	1.000	70,712
06/30/18	1.000	49,933
07/31/18	1.000	59,372
08/31/18	1.000	52,999
09/30/18	1.000	72,004
10/31/18	1.000	76,211
11/30/18	1.000	79,342
12/31/18	1.000	58,819
Total		**778,938**
Average Monthly Use		**64,912**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/18	31	64,912	8.06762	$250.10
Total						**$250.10**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/18	58,819	$0.16445	$9,672.78
Total			**58,819**		**$9,672.78**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP

Bill Period: 11/30/17 - 12/31/17

Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)		Meter Volume	Therms Delivered
52796568	11/30/17	12/31/17	5,104	1.015	MCF		51,806
Total Therms Delivered							**51,806**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
01/31/17	1.000	56,423
02/28/17	1.000	73,347
03/31/17	1.000	76,280
04/30/17	1.000	61,227
05/31/17	1.000	68,578
06/30/17	1.000	68,355
07/31/17	1.000	66,507
08/31/17	1.000	63,074
09/30/17	1.000	56,159
10/31/17	1.000	38,356
11/30/17	1.000	71,291
12/31/17	1.000	51,806
Total		**751,403**
Average Monthly Use		**62,617**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/17	31	62,617	8.46148	$262.31
Total						**$262.31**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/17	51,806	$0.11225	$5,815.22
Total			**51,806**		**$5,815.22**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP | Bill Period: 11/30/16 - 12/31/16 | Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)	Meter Volume	Therms Delivered
52796568	11/30/16	12/31/16	4,797	1.025	MCF	49,169
Total Therms Delivered						**49,169**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
01/31/16	1.000	57,506
02/29/16	1.000	76,211
03/31/16	1.000	75,724
04/30/16	1.000	61,043
05/31/16	1.000	41,841
06/30/16	1.000	43,441
07/31/16	1.000	55,406
08/31/16	1.000	67,259
09/30/16	1.000	37,116
10/31/16	1.000	45,808
11/30/16	1.000	72,457
12/31/16	1.000	49,169
Total		**682,981**
Average Monthly Use		**56,915**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/16	31	56,915	8.91321	$276.31
Total						**$276.31**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/16	49,169	$0.11980	$5,890.45
Total			**49,169**		**$5,890.45**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP

Bill Period: 06/30/16 - 07/31/16

Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)	Meter Volume	Therms Delivered
52796568	06/30/16	07/31/16	5,374	1.031	MCF	55,406
Total Therms Delivered						**55,406**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
08/31/15	1.000	59,771
09/30/15	1.000	56,296
10/31/15	1.000	84,071
11/30/15	1.000	68,984
12/31/15	1.000	69,107
01/31/16	1.000	57,506
02/29/16	1.000	76,211
03/31/16	1.000	75,324
04/30/16	1.000	61,043
05/31/16	1.000	41,841
06/30/16	1.000	43,441
07/31/16	1.000	55,406
Total		**749,401**
Average Monthly Use		**62,450**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	04/01/16	31	62,450	14.85962	$460.65
Total						**$460.65**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	04/01/16	55,406	$0.04468	$2,475.54
Total			**55,406**		**$2,475.54**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP

Bill Period: 10/31/15 - 11/30/15

Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)	Meter Volume	Therms Delivered
52796568	10/31/15	11/30/15	6,704	1.029	MCF	68,984
Total Therms Delivered						**68,984**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
12/31/14	1.000	76,398
01/31/15	1.000	87,381
02/28/15	1.000	75,274
03/31/15	1.000	76,265
04/30/15	1.000	62,566
05/31/15	1.000	49,641
06/30/15	1.000	48,879
07/31/15	1.000	58,668
08/31/15	1.000	59,771
09/30/15	1.000	56,296
10/31/15	1.000	84,071
11/30/15	1.000	68,984
Total		**804,194**
Average Monthly Use		**67,016**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/15	30	67,016	14.85962	$445.79
Total						**$445.79**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/15	68,984	$0.03758	$2,592.42
Total			**68,984**		**$2,592.42**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Pacific Gas and Electric Company

End User

UPF CORP

Bill Period: 11/30/14 - 12/31/14

Service Agreement ID. **5876747005**

Meter Information

Meter Type	Meter ID	Device Type	Usage Account	AIS Site ID #	Does Meter Serve Gen Load?	Is Gen Load Cogen?	Transmission/ Distribution/ Backbone
PRIMARY	52796568	AMR	1001780410	E255	No	No	T

Meter Reads

Meter ID	Prior Read Date	Current Read Date	Corrected Volume	Therm Factor (T01)		Meter Volume	Therms Delivered
52796568	11/30/14	12/31/14	7,468	1.023	MCF		76,398
Total Therms Delivered							**76,398**

Therms Delivered = Corrected Volumes (MCF) x Therm Factor x 10

Average Monthly Use Calculation

Service to Date	Billing Factor	Therms Delivered
01/31/14	1.000	58,406
02/28/14	1.000	61,803
03/31/14	1.000	57,455
04/30/14	1.000	75,052
05/31/14	1.000	71,254
06/30/14	1.000	75,776
07/31/14	1.000	71,962
08/31/14	1.000	78,142
09/30/14	1.000	74,399
10/31/14	1.000	73,400
11/30/14	1.000	83,681
12/31/14	1.000	76,398
Total		**857,728**
Average Monthly Use		**71,477**

Customer Access Charge / Customer Charge (Billing Factor = 1.000)

Schedule	Meter ID	Rate Effective Date	Days in Period	Noncore Average Monthly Use / Highest Average Daily Use (G-NR1)	Per Day Rate	Amount
G-NTT	52796568	11/01/14	31	71,477	14.56833	$451.62
Total						**$451.62**

Transportation Charge (based on therms)

Schedule	Meter ID	Rate Effective Date	Therms Delivered	Transportation per Therm Rate	Amount
G-NTT	52796568	11/01/14	76,398	$0.06194	$4,732.09
Total			**76,398**		**$4,732.09**

The Summer season begins April 1 and ends on October 31. The Winter season begins November 1 and ends on March 31.

Appendix C

Source tests

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 10/30/2018 **Pass** ☒ **Fail** ☐

Permit#: S-1126-12-9 **FacilityID:** 1126 **Unit ID:** ESP

Witnessed By: **Area Inspector:** AGUIRRET

Reason For Testing:

Annual ☒ Initial ☐ CGA ☐ RATA ☐ Stationary/RATA ☐ QTR:
ReTest ☐ RepTest ☐ AMS ☐ Dist Performed ☐ Unit Dormant ☐
Postponed ☐

Test Company: ENVIRONMENTAL SERVICES & TESTING **Project Number:** EST-1126-103018

Next Test: 10/17/2021 **Test Company Contact:** Mr. James Taplin

Equipment: ESP SERVING 4.25 MMBTU GLASS MELTING FURNACE

Equipment Type: Other **Input Rate:** 4.25 MMBTU **Output Rate:**

Control Equipment:

Catalyst ☐ Scrubber ☐ Baghouse ☐ FGR ☐ O2 ☐
LoNOx ☐ Incin ☐ ESP ☒ H2O/Stm Inj ☐ NH3/SCR ☐
DLN ☐ PSC ☐ PCC ☐ Rich Burn ☐ Lean Burn ☐
Cyclone ☐ TEOR-Gas ☐

Fuel Data And Operational Data:

Fuel Type: Nat. Gas **F-Factor:** **BTU:** **Fuel Rate:**
Second Fuel: **O2 % Stack:** **Stack Flow:** **Process Rate:**

Comments:

ESP STACK

Enforcement Action: ☐ **NOV#:**

Report Rec: 12/26/2018 **Reviewed By:** AMBERGS **Results Sent Date:** 01/03/2019

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/hr	0.04	0.21			ESP
PM10	lbs/hr	1.83	2.56			ESP

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 11/07/2017 **Pass** ☒ **Fail** ☐

Permit#: S-1126-12-9 **FacilityID:** 1126 **Unit ID:** ESP

Witnessed By: **Area Inspector:** BALLARDV

Reason For Testing:

Annual ☒ Initial ☐ CGA ☐ RATA ☐ Stationary/RATA ☐ QTR:
ReTest ☐ RepTest ☐ AMS ☐ Dist Performed ☐ Unit Dormant ☐
Postponed ☐

Test Company: ENVIRONMENTAL SERVICES & TESTING **Project Number:** UPF Glass

Next Test: 10/17/2021 **Test Company Contact:** Mr. James Taplin

Equipment: ESP SERVING 4.25 MMBTU GLASS MELTING FURNACE

Equipment Type: Other **Input Rate:** 4.25 MMBTU **Output Rate:**

Control Equipment:

Catalyst ☐ Scrubber ☐ Baghouse ☐ FGR ☐ O2 ☐
LoNOx ☐ Incin ☐ ESP ☒ H2O/Stm Inj ☐ NH3/SCR ☐
DLN ☐ PSC ☐ PCC ☐ Rich Burn ☐ Lean Burn ☐
Cyclone ☐ TEOR-Gas ☐

Fuel Data And Operational Data:

Fuel Type: Nat. Gas **F-Factor:** **BTU:** **Fuel Rate:**
Second Fuel: **O2 % Stack:** **Stack Flow:** **Process Rate:**

Comments:

ESP

Enforcement Action: ☐ **NOV#:**

Report Rec: 01/08/2018 **Reviewed By:** DAWSONB **Results Sent Date:** 05/31/2018

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/hr	0.01	0.21			ESP
PM10	lbs/hr	2.17	2.56			ESP

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 11/15/2016 **Pass** ☒ **Fail** ☐

Permit#: S-1126-12-9 **FacilityID:** 1126 **Unit ID:** ESP

Witnessed By: OREGONA **Area Inspector:** BALLARDV

Reason For Testing:

Annual ☒ Initial ☐ CGA ☐ RATA ☐ Stationary/RATA ☐ QTR:
ReTest ☐ RepTest ☐ AMS ☐ Dist Performed ☐ Unit Dormant ☐
Postponed ☐

Test Company: ENVIRONMENTAL SERVICES & TESTING **Project Number:** EST-1126-101816

Next Test: 10/17/2021 **Test Company Contact:** Mr. James Taplin

Equipment: ESP SERVING 4.25 MMBTU GLASS MELTING FURNACE

Equipment Type: Other **Input Rate:** 4.25 MMBTU **Output Rate:**

Control Equipment:

Catalyst ☐ Scrubber ☐ Baghouse ☐ FGR ☐ O2 ☐
LoNOx ☐ Incin ☐ ESP ☒ H2O/Stm Inj ☐ NH3/SCR ☐
DLN ☐ PSC ☐ PCC ☐ Rich Burn ☐ Lean Burn ☐
Cyclone ☐ TEOR-Gas ☐

Fuel Data And Operational Data:

Fuel Type: Nat. Gas **F-Factor:** **BTU:** **Fuel Rate:**
Second Fuel: **O2 % Stack:** **Stack Flow:** **Process Rate:**

Comments:

ESP ANNUAL, PM10 FACILITY TOTAL

Enforcement Action: ☐ **NOV#:**

Report Rec: 01/17/2017 **Reviewed By:** OREGONA **Results Sent Date:** 02/09/2017

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/hr	0.01	0.21			ESP
PM10	lbs/hr	0.21	2.56			ESP

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 06/24/1999 **Pass** ☒ **Fail** ☐

Permit#: S-1126-13-6 **FacilityID:** 1126 **Unit ID:** FIBER CURING

Witnessed By: **Area Inspector:**

Reason For Testing:

Annual ☒ Initial ☐ CGA ☐ RATA ☐ Stationary/RATA ☐ QTR:
ReTest ☐ RepTest ☐ AMS ☐ Dist Performed ☐ Unit Dormant ☐
Postponed ☐

Test Company: PETRO CHEM **Project Number:**

Next Test: **Test Company Contact:**

Equipment: 12.6 MMBTU FIBER FORMING, CURING LINE WITH FOUR STACKS

Equipment Type: GLASS FORMING **Input Rate:** 12.6 **Output Rate:**

Control Equipment:

Catalyst ☐ Scrubber ☐ Baghouse ☐ FGR ☐ O2 ☐
LoNOx ☐ Incin ☐ ESP ☐ H2O/Stm Inj ☐ NH3/SCR ☐
DLN ☐ PSC ☐ PCC ☐ Rich Burn ☐ Lean Burn ☐
Cyclone ☐ TEOR-Gas ☐

Fuel Data And Operational Data:

Fuel Type: PUC GAS **F-Factor:** 8710 **BTU:** **Fuel Rate:**
Second Fuel: **O2 % Stack:** 0.0 **Stack Flow:** 0 **Process Rate:**

Comments:

Enforcement Action: ☐ **NOV#:**

Report Rec: 07/28/1999 **Reviewed By:** GLENN SLITOR **Results Sent Date:**

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/MMBtu	2.5	9.39			FIBER CURING
NOx	lbs/MMBtu	0.58	1.04			FIBER CURING

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 10/31/2018 **Pass** ☒ **Fail** ☐

Permit#: S-1126-13-10 **FacilityID:** 1126 **Unit ID:** CURING STACKS

Witnessed By: **Area Inspector:** AGUIRRET

Reason For Testing:

Annual ☒ Initial ☐ CGA ☐ RATA ☐ Stationary/RATA ☐ QTR:
ReTest ☐ RepTest ☐ AMS ☐ Dist Performed ☐ Unit Dormant ☐
Postponed ☐

Test Company: ENVIRONMENTAL SERVICES & TESTING **Project Number:** EST-1126-103018

Next Test: 10/17/2021 **Test Company Contact:** Mr. James Taplin

Equipment: 12.6 (4*2.16) MMBTU GAS FIRED CURING OVEN AND 3.9 MMBTU AFTER BURNER

Equipment Type: Oven **Input Rate:** **Output Rate:**

Control Equipment:

Catalyst ☐ Scrubber ☐ Baghouse ☐ FGR ☐ O2 ☐
LoNOx ☐ Incin ☐ ESP ☐ H2O/Stm Inj ☐ NH3/SCR ☐
DLN ☐ PSC ☐ PCC ☐ Rich Burn ☐ Lean Burn ☐
Cyclone ☐ TEOR-Gas ☐

Fuel Data And Operational Data:

Fuel Type: Nat. Gas **F-Factor:** **BTU:** **Fuel Rate:**
Second Fuel: **O2 % Stack:** **Stack Flow:** **Process Rate:**

Comments:

CURING STACKS

Enforcement Action: ☐ **NOV#:**

Report Rec: 12/26/2018 **Reviewed By:** AMBERGS **Results Sent Date:** 01/03/2019

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/hr	0.87	8.56			Default
PM10	lbs/hr	1.83	2.56			Default

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 11/08/2017 **Pass** ☒ **Fail** ☐

Permit#: S-1126-13-10 **FacilityID:** 1126 **Unit ID:** CURING STACKS

Witnessed By: **Area Inspector:** AGUIRRET

Reason For Testing:

Annual	☒	Initial	☐	CGA	☐	RATA	☐	Stationary/RATA	☐	QTR:	
ReTest	☐	RepTest	☐	AMS	☐	Dist Performed	☐	Unit Dormant	☐		
Postponed	☐										

Test Company: ENVIRONMENTAL SERVICES & TESTING **Project Number:** UPF Glass

Next Test: 10/17/2017 **Test Company Contact:** Mr. James Taplin

Equipment: 12.6 (4*2.16) MMBTU GAS FIRED CURING OVEN AND 3.9 MMBTU AFTER BURNER

Equipment Type: Oven **Input Rate:** 3.9 MMBTU **Output Rate:**

Control Equipment:

Catalyst	☐	Scrubber	☐	Baghouse	☐	FGR	☐	O2	☐
LoNOx	☐	Incin	☐	ESP	☐	H2O/Stm Inj	☐	NH3/SCR	☐
DLN	☐	PSC	☐	PCC	☐	Rich Burn	☐	Lean Burn	☐
Cyclone	☐	TEOR-Gas	☐						

Fuel Data And Operational Data:

Fuel Type: Nat. Gas **F-Factor:** **BTU:** **Fuel Rate:**

Second Fuel: **O2 % Stack:** 20.4 **Stack Flow:** 7259 **Process Rate:**

Comments:

FORMING CURING STACKS (4)

Enforcement Action: ☐ **NOV#:**

Report Rec: 01/08/2018 **Reviewed By:** DAWSONB **Results Sent Date:** 05/31/2018

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/hr	0.57	8.56			CURING STACKS
PM10	lbs/hr	2.17	2.56			CURING STACKS

San Joaquin Valley Air Pollution Control District

Source Test Results

Company: UPF CORP **Test Date:** 11/15/2016 **Pass** ☒ **Fail** ☐

Permit#: S-1126-13-10 **FacilityID:** 1126 **Unit ID:** CURING STACKS

Witnessed By: OREGONA **Area Inspector:** BALLARDV

Reason For Testing:

Annual	☒	Initial	☐	CGA	☐	RATA	☐	Stationary/RATA	☐	QTR:	
ReTest	☐	RepTest	☐	AMS	☐	Dist Performed	☐	Unit Dormant	☐		
Postponed	☐										

Test Company: ENVIRONMENTAL SERVICES & TESTING **Project Number:** EST-1126-101816

Next Test: **Test Company Contact:** Mr. James Taplin

Equipment: 12.6 (4*2.16) MMBTU GAS FIRED CURING OVEN AND 3.9 MMBTU AFTER BURNER

Equipment Type: Oven **Input Rate:** **Output Rate:**

Control Equipment:

Catalyst	☐	Scrubber	☐	Baghouse	☐	FGR	☐	O2	☐
LoNOx	☐	Incin	☐	ESP	☐	H2O/Stm Inj	☐	NH3/SCR	☐
DLN	☐	PSC	☐	PCC	☐	Rich Burn	☐	Lean Burn	☐
Cyclone	☐	TEOR-Gas	☐						

Fuel Data And Operational Data:

Fuel Type: Nat. Gas **F-Factor:** **BTU:** **Fuel Rate:**

Second Fuel: **O2 % Stack:** **Stack Flow:** **Process Rate:**

Comments:

ANNUAL, PM10 FACILITY TOTAL, 4 CURING STACKS

Enforcement Action: ☐ **NOV#:**

Report Rec: 01/17/2017 **Reviewed By:** OREGONA **Results Sent Date:** 02/09/2017

Test Results:

Pollutant	Unit	Result	Limit	O2 Correction	Failed	Unit ID
CO	lbs/hr	0.87	8.56			CURING STACKS
PM10	lbs/hr	2.19	2.56			CURING STACKS

Appendix D

Fuel Usage Calculations

Facility total Fuel burned (Therms)

	Month	Fuel use therms	Quarters	Average operation (used to determine baseline) 24 month	36 month	48 month	
2021	March	26183					
	February	47114	125243				
	January	51946					
2020	December	63231					Baseline period
	November	57069	190377				July 2016 - June 2019
	October	70077					
	September	68695					
	August	67147	201894				
	July	66052					
	June	68840					
	May	40299	109139				
	April	0					
	March	3355					
	February	63468	145019				
	January	78196					
2019	December	73615					
	November	70756	198509				
	October	54138					
	September	65838					
	August	69208	208078				
	July	73032					
	June	50934					
	May	70201	197672	16233			
	April	76537					
	March	72359					
	February	71973	214609	5062			
	January	70277					
2018	December	58819					
	November	79342	214372	2063			
	October	76211					
	September	72004					
	August	52999	184375	4253			
	July	59372					
	June	49933					
	May	70712	185795	5329	6967		
	April	65150					
	March	53989					
	February	66602	194396	11501	1205		
	January	73805					
2017	December	51806					
	November	71291	161453	6869	3615		
	October	38356					
	September	56159					
	August	63074	185740	4077	4961		
	July	66507					
	June	68355					
	May	68578	198160	4138	2457	6047	
	April	61227					
	March	76280					
	February	73347	206050	3068	7543	4643	
	January	56423					
2016	December	49169					
	November	72457	167434	2799	4954	2431	
	October	45808					
	September	37116					
	August	67259	159781	5873	929	3961	
	July	55406					
	June	43441					
	May	41841	146325	10807	3350	2739	
	April	61043					
	March	75724					
	February	76211	209441				
	January	57506					
2015	December	69107					
	November	68984	222162				
	October	84071					
	September	56296					
	August	59771	174735				
	July	58668					
	June	48879					
	May	49641	161086				
	April	62566					
	March	76265					
	February	75274	238920				
	January	87381					
2014	December	76398					
	November	83681	233479				
	October	73400					
	September	74399					
	August	78142	224503				
	July	71962					
	June	75776					
	May	71254	222082				
	April	75052					
	March	57466					
	February	61803	177675				
	January	58406					
	Average - normal operation	62741	188224				

Baseline fuel usage, emission calculations

						Efs Unit 12				Efs Unit 13 attenuation/ curing				Emissions Unit 12				Emissions Unit 13(split afterburner/attenuation)				Total emissions all units			
		Facility	Facility	Permit 12	Permit 13	Nox	PM10	CO	VOC	Nox	PM10	CO	VOC	Nox	PM10	CO	VOC	Nox	PM10*	CO*	VOC	Nox	PM10	CO	VOC
	Month	Therms	MMBtu	MMBtu	MMBtu	lb/mmbtu	lb/mmbtu	lb/mmbtu	lb/mmbtu	lb/mmbtu	lb/mmbtu	lb/mmbtu	lb/mmbtu	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb	lb
2019	June	50934	5093	2106	2988	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	84.2	88.9	19.0	202.2	137.4	433.2	206.1	430.2	221.7	522.1	225.1	632.4
	May	70201	7020	2902	4118	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	116.1	122.5	26.1	278.6	189.4	597.1	284.1	592.9	305.5	719.5	310.2	871.6
	April	76537	7654	3164	4489	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	126.6	133.5	28.5	303.8	206.5	651.0	309.8	646.5	333.1	784.5	338.2	950.2
	March	72359	7236	2992	4244	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	119.7	126.2	26.9	287.2	195.2	615.4	292.9	611.2	314.9	741.7	319.8	898.4
	February	71973	7197	2976	4222	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	119.0	125.6	26.8	285.7	194.2	612.1	291.3	607.9	313.2	737.7	318.1	893.6
	January	70277	7028	2906	4122	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	116.2	122.6	26.1	278.9	189.6	597.7	284.4	593.6	305.8	720.3	310.6	872.5
2018	December	58819	5882	2553	3329	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	102.1	107.8	23.0	245.1	153.1	482.6	229.7	479.3	255.2	590.4	252.6	724.4
	November	79342	7934	3444	4490	0.04	0.0422	0.009	0.096	0.046	0.145	0.069	0.144	137.8	145.3	31.0	330.7	206.5	651.0	309.8	646.5	344.3	796.4	340.8	977.2
	October	76211	7621	3308	4313	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	132.3	139.6	6.6	317.6	198.4	741.8	194.1	621.0	330.7	881.4	200.7	938.6
	Septembe	72004	7200	3126	4075	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	125.0	131.9	6.3	300.1	187.4	700.8	183.4	586.8	312.5	832.7	189.6	886.8
	August	52999	5300	2301	2999	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	92.0	97.1	4.6	220.9	138.0	515.9	135.0	431.9	230.0	612.9	139.6	652.8
	July	59372	5937	2577	3360	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	103.1	108.8	5.2	247.4	154.6	577.9	151.2	483.8	257.6	686.7	156.3	731.2
	June	49933	4993	2168	2826	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	86.7	91.5	4.3	208.1	130.0	486.0	127.2	406.9	216.7	577.5	131.5	615.0
	May	70712	7071	3070	4002	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	122.8	129.5	6.1	294.7	184.1	688.3	180.1	576.2	306.9	817.8	186.2	870.9
	April	65150	6515	2828	3687	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	113.1	119.4	5.7	271.5	169.6	634.1	165.9	530.9	282.7	753.5	171.6	802.4
	March	53989	5399	2344	3055	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	93.7	98.9	4.7	225.0	140.5	525.5	137.5	439.9	234.3	624.4	142.2	664.9
	February	66602	6660	2891	3769	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	115.6	122.0	5.8	277.6	173.4	648.3	169.6	542.7	289.0	770.3	175.4	820.3
	January	73805	7381	3204	4177	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	128.2	135.2	6.4	307.6	192.1	718.4	187.9	601.4	320.3	853.6	194.4	909.0
2017	December	51806	5181	2329	2851	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	93.2	98.3	4.7	223.6	131.2	490.4	128.3	410.6	224.3	588.7	133.0	634.2
	November	71291	7129	3205	3924	0.04	0.0422	0.002	0.096	0.046	0.172	0.045	0.144	128.2	135.3	6.4	307.7	180.5	674.9	176.6	565.0	308.7	810.2	183.0	872.7
	October	38356	3836	1724	2111	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	69.0	72.8	3.4	165.6	97.1	367.3	145.7	304.0	166.1	440.1	149.1	469.6
	Septembe	56159	5616	2525	3091	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	101.0	106.6	5.0	242.4	142.2	537.8	213.3	445.1	243.2	644.4	218.3	687.5
	August	63074	6307	2836	3472	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	113.4	119.7	5.7	272.2	159.7	604.1	239.5	499.9	273.1	723.7	245.2	772.1
	July	66507	6651	2990	3661	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	119.6	126.2	6.0	287.1	168.4	636.9	252.6	527.1	288.0	763.1	258.6	814.2
	June	68355	6836	3073	3762	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	122.9	129.7	6.1	295.0	173.1	654.6	259.6	541.8	296.0	784.3	265.7	836.8
	May	68578	6858	3083	3775	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	123.3	130.1	6.2	296.0	173.6	656.8	260.4	543.5	297.0	786.9	266.6	839.5
	April	61227	6123	2753	3370	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	110.1	116.2	5.5	264.3	155.0	586.4	232.5	485.3	265.1	702.5	238.0	749.5
	March	76280	7628	3430	4198	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	137.2	144.7	6.9	329.2	193.1	730.5	289.7	604.6	330.3	875.3	296.6	933.8
	February	73347	7335	3298	4037	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	131.9	139.2	6.6	316.6	185.7	702.4	278.6	581.3	317.6	841.6	285.1	897.9
	January	56423	5642	2537	3106	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	101.5	107.1	5.1	243.5	142.9	540.4	214.3	447.2	244.3	647.4	219.4	690.7
2016	December	49169	4917	2426	2491	0.04	0.0422	0.002	0.096	0.046	0.174	0.069	0.144	97.0	102.4	4.9	232.9	114.6	433.5	171.9	358.7	211.6	535.8	176.7	591.6
	November	72457	7246	3575	3671	0.04	0.0422	0.005	0.096	0.046	0.143	0.026	0.144	143.0	150.9	17.9	343.2	168.9	524.9	95.4	528.6	311.9	675.8	113.3	871.8
	October	45808	4581	2260	2321	0.04	0.0422	0.005	0.096	0.046	0.143	0.026	0.144	90.4	95.4	11.3	217.0	106.8	331.9	60.3	334.2	197.2	427.2	71.6	551.2
	Septembe	37116	3712	1831	1880	0.04	0.0422	0.005	0.096	0.046	0.143	0.026	0.144	73.2	77.3	9.2	175.8	86.5	268.9	48.9	270.8	159.7	346.2	58.0	446.6
	August	67259	6726	3318	3408	0.04	0.0422	0.005	0.096	0.046	0.143	0.026	0.144	132.7	140.0	16.6	318.6	156.7	487.3	88.6	490.7	289.5	627.3	105.2	809.3
	July	55406	5541	2734	2807	0.04	0.0422	0.005	0.096	0.046	0.143	0.026	0.144	109.3	115.4	13.7	262.4	129.1	401.4	73.0	404.2	238.5	516.8	86.7	666.6

Assumption: the furnace permit '-12 runs fully loaded 100% of the time. However, UPF knows that there are excursions, but rare for this unit. So UPF assumed that the furnace ran 98% of the time (358 days/year- down for 7 days/year) and it ran at 95% of the permitted load (4.25 MMBTU/hr * 8760 hours/year). That is the gas allocated to the furnace (PTO 12-9) for a typical year. The permit '-12 MMBtu anual amount is subtracted from the total amount to determine the % breakdown of the fuel use by permit below.

Annual fuel ussage breakdown by permit

	2020	2019	2018	2017	2016
permit '-12%	52%	41%	43%	45%	49%
permit '-13%	48%	59%	57%	55%	51%

* note PM10 and CO were calculated using the most conservative emissions from either the attenuation burners or curing oven with afterburner.

		Quarterly Emissions			
		Nox	PM10	CO	VOC
	Month	lb	lb	lb	lb
2019	June				
	May	860.3	2026.1	873.6	2454.2
	April				
	March				
	February	934.0	2199.7	948.4	2664.5
	January				
2018	December				
	November	930.3	2268.2	794.1	2640.3
	October				
	September				
	August	800.1	2132.4	485.5	2270.8
	July				
	June				
	May	806.3	2148.8	489.3	2288.3
	April				
	March				
	February	843.6	2248.2	511.9	2394.2
	January				
2017	December				
	November	699.1	1839.0	465.1	1976.5
	October				
	September				
	August	804.3	2131.2	722.1	2273.8
	July				
	June				
	May	858.1	2273.7	770.4	2425.9
	April				
	March				
	February	892.2	2364.3	801.1	2522.4
	January				
2016	December				
	November	720.6	1638.9	361.7	2014.5
	October				
	September				
	August	687.7	1490.3	249.9	1922.5
	July				

Average Quarter Emissions				
Quarter	Nox	PM10	CO	VOC
1	890	2271	754	2527
2	842	2150	711	2389
3	764	1918	486	2156
4	783	1915	540	2210

AQID 10%				
Quarter	Nox	PM10	CO	VOC
1	89	227	75	253
2	84	215	71	239
3	76	192	49	216
4	78	192	54	221

Bankable Emissions Reductions				
Quarter	Nox	PM10	CO	VOC
1	801	2044	678	2274
2	757	1935	640	2151
3	688	1726	437	1940
4	705	1724	486	1989
Year lb	2951	7428	2242	8354
year ton	1.5	3.7	1.1	4.2

Appendix E

Draft ERC Certificates S-5256

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-5256-1

ISSUED TO: UPF CORP

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 3747 STANDARD ST
BAKERSFIELD, CA 93308

For VOC Reductions In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
2,274 lbs	2,151 lbs	1,940 lbs	1,989 lbs

Method Of Reduction

[X] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Units
[ ] Other

Shutdown of fiberglass filament manufacturing facility

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-5256-2

ISSUED TO: UPF CORP

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 3747 STANDARD ST
BAKERSFIELD, CA 93308

For NOx Reductions In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
801 lbs	757 lbs	688 lbs	705 lbs

Method Of Reduction

[X] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Units
[ ] Other

Shutdown of fiberglass filament manufacturing facility

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-5256-3

ISSUED TO: **UPF CORP**

ISSUED DATE: **<DRAFT>**

LOCATION OF REDUCTION: **3747 STANDARD ST BAKERSFIELD, CA 93308**

For CO Reductions In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
678 lbs	640 lbs	437 lbs	486 lbs

Method Of Reduction

[X] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Units
[ ] Other

Shutdown of fiberglass filament manufacturing facility

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Samir Sheikh, Executive Director / APCO

Brian Clements, Director of Permit Services

San Joaquin Valley
Air Pollution Control District

Southern Regional Office • 34946 Flyover Court • Bakersfield, CA 93308

Emission Reduction Credit Certificate

S-5256-4

DRAFT

ISSUED TO: UPF CORP

ISSUED DATE: <DRAFT>

LOCATION OF REDUCTION: 3747 STANDARD ST
BAKERSFIELD, CA 93308

For PM10 Reductions In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
2,044 lbs	1,935 lbs	1,726 lbs	1,724 lbs

Method Of Reduction

[X] Shutdown of Entire Stationary Source
[ ] Shutdown of Emissions Units
[ ] Other

Shutdown of fiberglass filament manufacturing facility

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.

Samir Sheikh, Executive Director / APCO

DRAFT

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Brian Clements, Director of Permit Services

Jan 18 2022 1:24PM -- KLEVANND